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OF THE STATE OF CALIFORNIA

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RESPONSE OF THE CALIFORNIA ENERGY STORAGE ALLIANCE TO THE APPLICATION OF PACIFIC GAS AND ELECTRIC COMPANY (U 39 E) FOR APPROVAL OF ITS COMMERCIAL ELECTRIC VEHICLE RATES

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In accordance with Rules of Practice and Procedure of the California Public Utilities Commission ("Commission"), the California Energy Storage Alliance ("CESA")[1] hereby submits this response to the *Application of Pacific Gas and Electric Company (U 39 E) for Approval of its Commercial Electric Vehicle Rates* ("Application"), submitted by Pacific Gas and Electric Company ("PG&E") on November 5, 2018.

[1] 174 Power Global, 8minutenergy Renewables, Able Grid Energy Solutions, Advanced Microgrid Solutions, AltaGas Services, Amber Kinetics, American Honda Motor Company, Inc., Avangrid Renewables, Axiom Exergy, Boston Energy Trading & Marketing, Brenmiller Energy, Bright Energy Storage Technologies, Brookfield Renewables, Carbon Solutions Group, Centrica Business Solutions, Clean Energy Associates, Consolidated Edison Development, Inc., Customized Energy Solutions, Dimension Renewable Energy, Doosan GridTech, Eagle Crest Energy Company, East Penn Manufacturing Company, Ecoult, EDF Renewable Energy, ElectrIQ Power, eMotorWerks, Inc., Enel X North America, Energport, ENGIE, E.ON Climate & Renewables North America, esVolta, Fluence, Form Energy, GAF, General Electric Company, Greensmith Energy, Ingersoll Rand, Innovation Core SEI, Inc. (A Sumitomo Electric Company), Iteros, Johnson Controls, KeraCel, Lendlease Energy Development, LG Chem Power, Inc., Lockheed Martin Advanced Energy Storage LLC, LS Power Development, LLC, Magnum CAES, Mercedes-Benz Energy, NantEnergy, National Grid, NEC Energy Solutions, Inc., NextEra Energy Resources, NEXTracker, NGK Insulators, Ltd., NRG Energy, Inc., Parker Hannifin Corporation, Pintail Power, Primus Power, Quidnet Energy, Range Energy Storage Systems, Recurrent Energy, Renewable Energy Systems (RES), Sempra Renewables, Sharp Electronics Corporation, SNC Lavalin, Southwest Generation, Sovereign Energy, Stem, STOREME, Inc., Sunrun, Swell Energy, Tenaska, Inc., True North Venture Partners, Viridity Energy, VRB Energy, WattTime, Wellhead Electric, and Younicos. The views expressed in these Comments are those of CESA, and do not necessarily reflect the views of all of the individual CESA member companies. (http://storagealliance.org).

I. INTRODUCTION.

CESA supports the goal to accelerate broad transportation electrification, including for medium- and heavy-duty fleets, and to decarbonize the transportation sector, as directed by Executive Order B-48-18 and required by Senate Bill ("SB") 350. To this end, innovative rate designs such as those proposed by PG&E in its Application are needed to send commercial electric vehicle ("EV") customers the price signals to charge during times of renewable generation and lower marginal cost that better ensures system-wide reduced emissions while also supporting the business case for customers to adopt EVs with reasonably understandable and predictable electricity costs and fuel savings depending on their charging patterns. CESA agrees with the intent of PG&E in submitting this Application.[2]

Many elements of PG&E's proposal are thus helpful in accelerating transportation electrification through rate design. In particular, CESA supports the flexibility afforded to customers to choose month-by-month subscription plans, which allows customers to adapt and adjust their 'coverage' depending on their charging needs, rather than applying typical demand charges that create some uncertainty to fuel savings and electricity costs to the customer. Additionally, CESA believes that the subscription structure provides customers with the flexibility to subscribe to a lower capacity plan than the maximum capacity of the connected EV load, allowing customers to manage demand below the subscription plan threshold through smart charging schedules or through the use of other distributed energy resources ("DERs").[3] This novel

[2] PG&E's Prepared Testimony, Chapter 1, pp. 2-8.
[3] *Ibid*, p. 22.

approach may be a first step for the state to test out transactive energy concepts.[4] CESA supports the further consideration and development of this proposal.

However, while generally supportive of the Application, CESA has a few concerns that we wish to be addressed over the course of this proceeding.

II. WHILE TECHNOLOGY-SPECIFIC RATES ARE REASONABLE IN THE SHORT-TERM TO SPUR MARKET TRANSFORMATION, RATE STRUCTURES SHOULD BE TECHNOLOGY-NEUTRAL IN THE LONG-TERM TO SPUR INVESTMENT IN MANY DIFFERENT DISTRIBUTED ENERGY RESOURCES.

CESA generally favors technology-neutral rate designs and believes that the Commission should avoid creating separate rate classes, especially as customers move toward adopting multiple DERs to manage their bills going forward. Already, many customers are adopting solar, energy storage, and demand response technologies in addition to EVs, so creating a separate rate class may help in promoting the adoption of one type of technology but may limit the economic incentives for another type of technology. In the long run, customers should be given uniform price signals to manage all their loads, including for their building and EV loads. Furthermore, while commercial EV adoption is small at this time, once commercial EV charging stations reach a critical mass and utilization increases, CESA believes that EV charging load subject to these new rates will begin to resemble any other regular commercial load.

Instead of creating a separate rate class for commercial EV customers, there may be some consideration in the future on how this subscription plan model could be expanded as an option to other customer classes when this rate design is evaluated in the 2023 General Rate Case ("GRC") proceeding.[5] At the same time, at this current stage of commercial EV deployment, CESA supports

[4] Cazalet, et al., *Transactive Energy Models*, September 2016, pp. 16-22. http://temix.net/images/Transactive_Energy_Models_Paper.pdf

[5] PG&E Prepared Testimony, Chapter 1, p. 13.

the potential approval of the proposed E-CEV-S and E-CEV-L subscriptions rates to encourage a new resource and support our policy objectives. However, it is important to emphasize these rates be available on an optional basis, as proposed by PG&E, and that these new subscription rates not be precedential until further evaluation of cost-shifting and cost-effectiveness concerns is conducted and an assessment of whether separate rate classes and/or other modifications to the plans are needed.

III. MORE DETAILS AND/OR JUSTIFICATIONS ARE NEEDED FOR SOME SPECIFIC ELEMENTS OF THE PROPOSAL.

CESA requests that PGE& provide more details and/or justifications for some specific elements of the proposal over the course of the proceeding. For example, CESA seeks to understand why it is reasonable to propose a longer peak period from 4pm to 10pm despite a 4pm to 9pm peak period being adopted in other rate cases, including PG&E's recent 2018 General Rate Case (GRC) decision, D.18-08-013. PG&E offers an unconvincing justification for extending the peak period by one hour – *i.e.*, EV owners are more flexible and price responsive than home or building loads.[6] However, this may be a broad generalization of all commercial EV customers, who have a variety of different customer charging profiles/needs and use case (*e.g.*, offices, malls) that likely have different levels of flexibility to shift charging load.[7] Commercial EV customers adopting DC fast chargers may also have less flexibility to shift load given the use cases in which quick 20-30 minute charges are needed, in contrast to commercial EV charging stations where EVs have long dwell times and offer the ability to flexibly shift the time of charging load. Greater

[6] *Ibid*, Chapter 1, p. 23.
[7] *Ibid*, Chapter 3, p. 85.

justification is needed before deviating from established time-of-use ("TOU") periods from other ratemaking proceedings.

Furthermore, CESA seeks to understand how other "associated" or connected load to the EV charging load would be permitted to take service under the proposed commercial EV rates.[8] Energy storage was cited as one example of a permissible associated load, but greater detail may be needed to understand eligibility for energy storage to take service under the proposed commercial EV rates, including around whether the storage device must be under the same sub-meter, whether the storage device could also discharge to building or facility load in addition to EV load, etc. CESA envisions energy storage systems playing some role in the future in helping commercial EV customers in managing their demand under their subscriptions plans, so clarifications or details in this regard will be helpful and important.

Finally, CESA seeks to understand why there is a lack of seasonality to the proposed TOU volumetric rates. On the one hand, CESA understands the need to reduce complexity to EV customers by establishing consistent TOU price periods across the entire year, as done in PG&E's Application.[9] However, there may be an opportunity to balance simplicity and consistency (with the proposed rates around TOU periods) with the ability to provide greater economic value to the customer and the grid by differentiating rates across seasons. Potentially, sharper economic signals from seasonal adjustments of rates in line with utility costs and grid stressors would incentivize customer EV charging behavior accordingly with greater pass-through savings. For similar reasons, the Commission issued Decision ("D.") 17-08-030 in San Diego Gas and Electric Company's ("SDG&E") General Rate Case Phase 2 proceeding (A.15-04-012) that established a

[8] *Ibid*, Chapter 1, p. 31.
[9] *Ibid*, Chapter 1, pp. 17, 23.

super-off-peak period between 10am and 2pm in March and April due to evidence showing extremely low energy prices and marginal costs.[10] Subsequently, the Commission also adopted seasonal adjustments with a super-off-peak period in the spring in D.18-08-013 in PG&E's recent GRC Phase 2 proceeding (A.16-06-013) to increase utilization of renewable energy resources.[11] Thus, upon further discovery into the marginal costs across different hours and seasons of the day, the Commission should consider seasonal adjustments to volumetric rates in alignment with grid needs/costs and decarbonization objectives, while maintaining consistent TOU price periods across the year. In doing so, CESA believes such modifications to the commercial EV rates will better align with cost drivers and policy goals and will balance against the objectives for customer understanding.

[10] *Decision Adopting Revenue Allocation and Rate Design for San Diego Gas and Electric Company*, D.17-08-030, issued on August 25, 2017, pp. 23-24.

[11] *Decision on Pacific Gas and Electric Company's Proposed Rate Designs and Related Issues*, D.18-08-013, issued on August 9, 2018, p. 152.

IV. CONCLUSION.

CESA appreciates the opportunity to submit this response to the PG&E's Application and looks forward to working with the Commission, PG&E, and other stakeholders in this proceeding. CESA is generally supportive of the Application and believes it represents an innovative rate design that has the potential to spur widespread and accelerated electrification of the commercial customer space. Though supportive of the innovative proposal at this time, CESA seeks to ensure that the proposed rate designs are evaluated at a later time and seeks certain modifications or clarifications be made over the course of this proceeding.

Respectfully submitted,

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